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16	UNITED STATES DISTRICT COURT	
17	DISTRICT OF NEVADA	
18	DISTRICT	OI NEVIDI
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20	The FALLON PAIUTE-SHOSHONE TRIBE and the CENTER FOR BIOLOGICAL	Case No.:
21	DIVERSITY;	COMPLAINT FOR DECLARATORY
22	Plaintiffs,	AND INJUNCTIVE RELIEF
23	vs.	
24	U.S. DEPARTMENT OF THE INTERIOR, BUREAU OF LAND MANAGEMENT, and	
	JAKE VIALPANDO in his official capacity as	
25	Field Manager of the Bureau of Land Management Stillwater Field Office;	
26	Defendants.	
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Plaintiffs, the FALLON PAIUTE-SHOSHONE TRIBE (the "Tribe") and the CENTER FOR BIOLOGICAL DIVERSITY (the "Center") and by and through their attorneys of record, hereby complain and allege as follows:

INTRODUCTION

- 1. The Tribe and the Center challenge Defendants' failure to comply with the National Environmental Policy Act ("NEPA"), the Federal Land Policy and Management Act ("FLPMA"), the Religious Freedom Restoration Act ("RFRA"), the Administrative Procedure Act ("APA"), and Defendants' trust responsibilities to the Tribe in issuing a Final Environmental Assessment, Finding of No Significant Impact, and Decision Record authorizing the Dixie Meadows Geothermal Utilization Project ("Project").
- 2. The Project is a proposal to build two geothermal powerplants, 18 or more geothermal wells, access roads, and 48 miles of transmission line on approximately 2,000 acres of public land in Dixie Valley in north-central Nevada. The Project would extract underground geothermal fluid, use its heat to generate electricity, and reinject the same fluid underground at a cooler temperature. Because the Project would use federal geothermal resources and construct facilities on federal public land, the Project can only proceed if authorized by Defendant Bureau of Land Management ("BLM").
- 3. Construction and operation of the Project would occur directly adjacent to Dixie Meadows Hot Springs and utilize the same geothermal fluid that heats the springs. The Hot Springs are a sacred healing site for the Tribe, with immense spiritual meaning and value to the Tribe's culture, religion, history, and way of life. The Tribe's members and ancestors have resided in the Dixie Valley region for more than 10,000 years, as documented in the Tribe's oral histories and through genetic evaluation of the Spirit Cave human remains. The Tribe's longstanding use of the Dixie Meadows Hot Springs as a sacred site and landscape is well-documented in oral histories and ethnographies. In the Tribe's belief system, the Hot Springs, together with the associated ecosystem and landscape, comprise an animate, living entity entitled to reverence and respect
- 4. The Hot Springs create a rare and unique wetland spring environment that, in addition to holding immense cultural, religious, historical, and spiritual significance to the Tribe, provides the

only known habitat for the Dixie Valley toad (*Anaxyrus williamsi*). The U.S. Fish and Wildlife Service ("FWS") has concluded that "substantial scientific or commercial information" may support listing the Dixie Valley toad under the Endangered Species Act ("ESA"), in part due to the threat posed by geothermal development, which could reduce or eliminate the toad's habitat.

- 5. The Project's proposed use of geothermal fluids is likely to permanently degrade the Hot Springs and their associated ecosystem. Geothermal energy developments like the Project have significantly altered or even eliminated nearby thermal springs because the geothermal resources used for power generation often flow from the same underground reservoir that feeds springs on the surface. A similar geothermal power facility authorized by BLM, constructed and operated by the Project developer, and located approximately 40 miles away from the Project site likely caused nearby hot springs in Jersey Valley, Nevada to stop flowing entirely.
- 6. By significantly altering the water quantity, temperature, and quality in the Hot Springs, operation of the Project risks extinction of the Dixie Valley toad and permanent impairment of the Tribe's exercise of its cultural, religious, and spiritual practices. Construction of the Project will also eliminate much of the toad's terrestrial habitat. Despite these risks—and despite numerous detailed comment letters from the Tribe, the Center, the U.S. Fish and Wildlife Service, the Nevada Department of Wildlife, and the U.S. Navy warning Defendants of the grave threat that the Project poses to the Hot Springs and associated ecosystem—Defendants unlawfully approved the Project without adequate environmental analysis and planning, as required under NEPA, and without ensuring that any impacts to the Hot Springs and the wildlife species that depend on them will be adequately avoided or mitigated, as required under BLM's own policies and FLPMA.
- 7. In addition to posing significant risk of permanent irreparable harm to the Hot Springs and associated ecosystem, the Project would turn a pristine and unique location of ecological value and spiritual significance into an industrial site. The Tribe's cultural, religious, and spiritual practices involve quiet contemplation at the undisturbed Hot Springs. Construction and operation of the Project would damage the Tribe by creating significant noise, light, and visual obstruction at their sacred site. Powerplant construction and operation in and around the Hot Springs would substantially burden

Tribal members' religious exercise without compelling justification, and violate Defendants' trust responsibilities to the Tribe.

- 8. The Tribe and the Center specifically challenge: (1) Defendant BLM's August 2021 Final Environmental Assessment ("EA") for the Dixie Meadows Geothermal Utilization Project as unlawful under NEPA and FLPMA and arbitrary and capricious under the APA; (2) Defendant BLM's November 23, 2021 Finding of No Significant Impact ("FONSI") concerning the Dixie Meadows Geothermal Utilization Project as unlawful under NEPA and FLPMA and arbitrary and capricious under the APA; and (3) Defendant BLM's November 23, 2021 Decision Record authorizing the Dixie Meadows Geothermal Utilization Project as unlawful under NEPA, FLPMA, and RFRA, arbitrary and capricious under the APA, and (4) Defendants' statutory violations as contrary to their trust responsibilities to the Tribe.
- 9. The Tribe and the Center seek a declaration that Defendants violated NEPA, FLPMA and APA in issuing and approving the August 2021 Final EA; that Defendants violated NEPA, FLPMA and the APA in issuing the November 23, 2021 FONSI; that Defendants violated NEPA, FLPMA, RFRA, and the APA in unlawfully issuing and approving the November 23, 2021 Decision Record based on the Final EA and FONSI; that Defendants' approval of the Project was arbitrary, capricious, and an abuse of discretion under the APA; and that these violations represent a breach of Defendants' trust responsibilities to the Tribe. The Tribe and the Center further seek vacatur of the Final EA, FONSI, and Decision Record, as well as preliminary and permanent injunctive relief to enjoin any implementation of the Decision Record.

JURISDICTION

10. Jurisdiction is proper in this Court under 28 U.S.C. § 1331 (federal question), 28 U.S.C. § 1346 (United States as defendant), 42 U.S.C. § 2000bb-1 (Religious Freedom Restoration Act), and 5 U.S.C. §§ 551-706 (Administrative Procedure Act), because this action involves the United States as a defendant, concerns a government-imposed substantial burden on religious exercise, and arises under the laws of the United States, including NEPA, 42 U.S.C. § 4332, FLPMA, 43 U.S.C. §§ 1701-1736, 1737-1782, RFRA, 42 U.S.C. §§ 2000bb-2000bb-4 and the APA, 5 U.S.C. §§ 551-706. An

actual justiciable controversy exists between Plaintiffs and Defendants. The requested relief is proper under 28 U.S.C. §§ 2201 and 2202 (Declaratory Judgment Act); 42 U.S.C. § 2000bb-1 (RFRA); and 5 U.S.C. §§ 705 and 706 (Administrative Procedure Act). The challenged agency actions are final and subject to this Court's review under 5 U.S.C. §§ 702, 704, and 706 (Administrative Procedure Act).

VENUE

- 11. Venue is proper in this Court pursuant to 28 U.S.C. § 1391(e) because Defendants have offices in this judicial district, a substantial part of the events or omissions giving rise to the claims in this Complaint occurred in this judicial district, and the lands involved in this case are located in this judicial district.
- 12. Venue is proper in the Northern Division of this District, as the challenge involves federal lands and resources in Churchill County, Nevada. L.R. 1A 8-1.

PARTIES

- 13. The Fallon Paiute-Shoshone Tribe is a sovereign, federally recognized Indian Tribe whose members have lived upon and used the lands affected by the Project since time immemorial. *See* 86 Fed. Reg. 7554, 7556 (January 29, 2021). The Tribe refers to itself as the *Toi-Ticutta*, or "Cattail eaters," because Tribal members have long subsisted on native plants including cattails from marshes such as those in Dixie Meadows. The Tribe has used marsh plants to create housing, clothing, hunting decoys, and other material objects such as baskets and hats. The Tribe is currently based on a small Reservation in Churchill County, near the City of Fallon, Nevada. The Tribe has approximately 1,500 members, most of whom reside on the Reservation. Because the Tribe was placed on a small Reservation by the United States, Tribal members rely on federal public lands, including BLM-managed lands in Dixie Valley, to continue their way of life and maintain connection to their cultural and spiritual values.
- 14. Many Tribal members, including enrolled Tribal member and Tribal Historic Preservation Officer Rochanne Downs, derive enjoyment and health, spiritual, and religious benefits from their activities in and around Dixie Meadows. Use of Dixie Meadows Hot Springs and the surrounding area connects Tribal members to their history, culture, and way of life.

- 15. Many Tribal members, including Ms. Downs, consider Dixie Meadows Hot Springs sacred in their natural, undisturbed state due to their undamaged connection to the natural world, as well as their healing properties. According to the Tribe's worldview, the Creator made Dixie Meadows, its ecosystem, and its landscape perfectly, in part to nurture and sustain the Tribe and its members. Dixie Meadows Hot Springs is a sacred site and part of a traditional cultural landscape.
- 16. Tribal members, including Ms. Downs, regularly visit Dixie Meadows to avail themselves of the Hot Springs' healing properties and partake in their traditional spiritual, religious, and cultural practices. These practices include: using mud for healing, soaking, camping, and harvesting native plants for weaving and other uses. These practices require quiet for contemplation, and darkness to see the night sky. During the day, Ms. Downs values the ability to view Fox Peak, the Tribe's origin site. The peak is visible from the Hot Springs and viewing it in an undisturbed landscape allows Ms. Downs to reflect on the Tribe's origin and presence in the region since time immemorial. At night, she values being able to see a full starry sky in order to reflect on the vastness of creation and the blessing of being present as a Native person at the sacred springs.
- 17. Tribal members, including Ms. Downs, plan to continue to use and enjoy the Dixie Meadows area regularly and on an ongoing basis in the future, including this winter and spring. Many of the other springs in the area have been damaged or ruined by development. Dixie Meadows Hot Springs is therefore the most important and sacred spring to the Tribe, and one of the very last remaining springs in the area. The cumulative impacts of past development, including geothermal energy development, make Dixie Meadows Hot Springs especially important.
- Tribal members by changing a natural setting into an industrial setting with substantial noise, traffic, light, and presence of two 32-acre powerplants, 18 wells, and associated infrastructure. Operation of the project would harm the Tribe, Ms. Downs, and other Tribal members by altering the springs' water quantity or quality, the surrounding ecosystem, and the landscape, thereby reducing Tribal members' ability to carry out their cultural and spiritual practices. If the Project changes the Hot Springs' water or causes the springs to dry up, it would be devastating to Ms. Downs and other Tribal members.

- 19. The Project's alteration of the pristine and natural sacred Hot Springs site violates Ms. Downs' and other Tribal members' religious, cultural, and spiritual values, and reduces their ability to carry out their way of life. Ms. Downs would no longer have an unobstructed view of Fox Peak or the night sky and would no longer be able to appreciate surrounding nature as the Creator intended. It would also cause Ms. Downs tremendous grief to observe the land on a sacred site bulldozed and disturbed, and a wide variety of industrial infrastructure installed. Ms. Downs and other Tribal members' ability to exercise their religion at the Hot Springs would be substantially impaired if not wholly eliminated if the Project is constructed.
- 20. Defendants' violations of law, including NEPA, FLPMA, RFRA, the APA, and Defendants' trust duties to the Tribe cause procedural and concrete harms to the Tribe and its members, including Ms. Downs. For example, Defendants' failure to adequately evaluate and disclose the conflicting views of various experts regarding the likely impacts of geothermal extraction on the Hot Springs deprives Tribal members of the ability to meaningfully participate in the Defendants' decisionmaking process. Additionally, Defendants' failure to adequately consider the environmental justice impacts to the Tribe, and forcing the Tribe to bear a disproportionate burden of the impacts from energy production, harm Ms. Downs and the Tribe.
- 21. Tribal members' health, spiritual, religious, inspirational, and recreational interests have been and will continue to be adversely affected and irreparably injured if Defendants' ongoing violations of NEPA, FLPMA, RFRA, the APA, and Defendants' trust responsibilities continue. As detailed above, construction and operation of the Project would cause actual, concrete injuries to Tribal members. The relief sought will redress these injuries to the Tribe and its members.
- 22. The Center is a non-profit corporation headquartered in Tucson, Arizona, with offices and staff in several states including Nevada. The Center works through science, law, and policy to secure a future for all species, great or small, hovering on the brink of extinction. The Center is actively involved in endangered species and habitat protection nationwide, and has more than 89,000 members throughout the United States and the world, including 745 members in Nevada.

- 23. The Center brings this action on its own behalf, and on behalf of its members who derive scientific, aesthetic, recreational, and spiritual benefits from the Dixie Meadows area and the narrowly endemic wildlife species that would be significantly impacted by the construction and operation of the Project.
- 24. The Center's members, including Patrick Donnelly, the Center's Nevada State Director, use and enjoy the federal lands in and around Dixie Meadows for a variety of purposes, including hiking, camping, photographing scenery and wildlife, viewing wildlife and signs of wildlife, and engaging in other vocational, scientific, spiritual, and recreational activities. The areas in and around the Dixie Meadows that Mr. Donnelly and other Center members use and enjoy include specific areas impacted by the construction and operation of the Project, and specific areas where the Dixie Valley toad may be found.
- 25. Mr. Donnelly first visited Dixie Meadows on June 20, 2017. During this visit he observed the wetland complex in a "robust" and pristine condition, with healthy riparian and aquatic vegetation. He next visited on June 21, 2017 in the early morning. During this visit he observed "hundreds" of Dixie Valley toads and took dozens of photographs and videos. He describes this visit as "one of the most enjoyable mornings" he has "ever had in the desert." Mr. Donnelly returned to Dixie Meadows on July 29, 2018 to check on the status of geothermal exploration near the wetlands. On December 26, 2019 Mr. Donnelly visited again and observed flowing water in the marsh and green vegetation in the wetland. For him, this visit exemplified the features that make Dixie Meadows a special and irreplaceable location. Mr. Donnelly visited Dixie Meadows yet again on December 13, 2021 to check on the status of Project development.
- 26. Mr. Donnelly and other Center members derive health, aesthetic, recreational, inspirational, spiritual, scientific, and educational benefits from their activities in and around Dixie Meadows. Mr. Donnelly intends to continue to use and enjoy the Dixie Meadows area frequently and on an ongoing basis in the future, including in January 2022. Mr. Donnelly derives particular enjoyment and inspiration for endemic desert species such as the Dixie Valley toad, and utilizes these rare and irreplaceable species and ecosystems for exploration, spiritual contemplation, and

photography. Mr. Donnelly also values the natural, quiet, and serene character of the Dixie Meadows area that would be irreparably damaged by Project construction. The areas that Mr. Donnelly and other Center members intend to continue to use and enjoy include specific areas that the construction and operation of the Project would directly and indirectly affect, and specific areas where the Dixie Valley toad may be found.

- 27. The health, aesthetic, recreational, inspirational, spiritual, scientific, and educational interests of Mr. Donnelly and other Center members have been and will continue to be adversely affected and irreparably injured if Defendants' ongoing violations of NEPA, FLPMA, and the APA continue. As explained herein, geothermal energy development is known to have significant impacts on adjacent surface water features, impacts that are rendered even more likely through Defendants' failure to understand or properly analyze the Project's environmental impacts. In addition, Project construction will bring noise, light pollution, traffic, disturbance, and destruction of natural habitats that will harm Mr. Donnelly's and other Center members' use and enjoyment of the area in its current, largely natural and undisturbed state. These are actual, concrete injuries caused by the Defendants' violations of NEPA, FLPMA, and the APA. The relief sought will redress these injuries to the Center and its members by halting the damage to the Hot Springs and the surrounding area from construction and operation of the Project.
- 28. Defendants' failure to comply with NEPA additionally harms the Plaintiffs by denying them the right to informed decisionmaking and full disclosure under NEPA, as well as the right to meaningfully participate in the decisionmaking process.
- 29. Defendant U.S. Department of the Interior ("Interior") is a cabinet-level executive agency responsible for, among other things, managing federally-owned lands, wildlife, and public natural resources throughout the United States. Interior has the ultimate responsibility to administer and implement FLPMA, and to comply with all other applicable federal laws, including NEPA and RFRA.

30. Defendant Bureau of Land Management is an agency within the U.S. Department of the Interior. BLM and its officers are responsible for administering federally-owned public lands and natural resources, and all federal laws applicable thereto, including NEPA and FLPMA.

31. Defendant Jake Vialpando is the Field Office Manager for BLM's Stillwater Field Office. As Field Office Manager, Mr. Vialpando is responsible for administering and managing public lands and resources within the Stillwater Field Office, including lands and resources located in Dixie Valley. Mr. Vialpando signed the November 23, 2021 FONSI and Decision Record authorizing the Project. Mr. Vialpando is sued in his official capacity.

LEGAL BACKGROUND

A. The National Environmental Policy Act

- 32. NEPA is our "basic national charter for protection of the environment." 40 C.F.R. § 1500.1(a). It serves twin goals. First, it aims to ensure that federal agencies carefully consider detailed information regarding the environmental impact of a proposed action before reaching a decision on the action. Second, it ensures that information about a proposal's environmental impact is made available to members of the public so that they may play a role in the decision-making process. NEPA ensures that important effects will not be overlooked or underestimated only be discovered after resources have been committed or the die otherwise cast.
- 33. The White House Council on Environmental Quality ("CEQ") has promulgated regulations implementing NEPA. *See* 40 C.F.R. § 1507.3(b) (1978). On July 16, 2020 CEQ published a Final Rule significantly revising these regulations. 85 Fed. Reg. 43304-76 (July 16, 2020). The Final Rule took effect on September 14, 2020, and applied to federal projects begun after September 14, 2020. *Id.* at 43372-73. The Project was begun well before September 14, 2020, and BLM applied the pre-2020 regulations in its NEPA process for the Project. Accordingly the regulations in effect before the promulgation of CEQ's July 16, 2020 Final Rule apply to the Project and are cited throughout this Complaint.
- 34. NEPA and its implementing regulations require federal agencies to prepare an environmental impact statement ("EIS") for all "major Federal actions significantly affecting the

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quality of the human environment." 42 U.S.C. § 4332(C)(i); 40 C.F.R. § 1501.4. A federal agency action may be "significant," and thus require an EIS, if: it affects unique environmental characteristics such as wetlands or ecologically critical areas, 40 C.F.R. §1508.27(3); the action's effects on the quality of the human environment are likely to be highly controversial, 40 C.F.R. §1508.27(4); the action's possible effects on the human environment are highly uncertain or involve unique or unknown risks, 40 C.F.R. §1508.27(5); the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration, 40 C.F.R. §1508.27(6); the action is related to other actions with individually insignificant but cumulatively significant impacts, 40 C.F.R. §1508.27(7); or the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources, 40 CFR §1508.27(8).

- 35. An agency may first prepare an EA to determine whether an EIS is necessary. 40 C.F.R. §§ 1501.4, 1508.9. If, after preparing an EA, the agency decides that an EIS is not necessary, the agency must prepare an explanatory Finding of No Significant Impact ("FONSI") which "briefly present[s] the reasons why an action . . . will not have a significant effect on the human environment." 40 C.F.R. § 1508.13.
- 36. Whether the agency prepares an EA or an EIS, the agency must take a "hard look" at all direct, indirect, and cumulative environmental impacts of the proposed action and reasonable alternatives thereto. 40 C.F.R. §§ 1502.14, 1502.16. To fulfill its purpose, the agency's environmental analysis must "provide full and fair discussion of significant environmental impacts and . . . inform decisionmakers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment." 40 C.F.R. § 1502.1.
- 37. Part of the evaluation of environmental effects is consideration of possible outcomes that would be especially harmful. This analysis is particularly essential where a project includes uncertain impacts.
- 38. To comply with NEPA's requirements, the agency must set an appropriate environmental baseline detailing the nature and extent of the resources in the affected area. The

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concept of a baseline against which to compare predictions of the effects of the proposed action and reasonable alternatives is critical to the NEPA process. Without establishing baseline conditions, there is no way to objectively or accurately determine what effect an action will have on the environment and, consequently, no way to comply with NEPA. The duty to perform a baseline analysis of environmental conditions before assessing the impacts of a proposed action on the environment applies to EAs and well as EISs.

- 39. Where an agency attempts to avoid the EIS requirement by relying on proposed mitigation measures to avoid any significant environmental impacts, NEPA requires that the agency provide analytical data to support the proposed mitigation measures. A mere listing of mitigation measures is insufficient to qualify as the reasoned discussion required by NEPA. Any proposed mitigation measures must be carefully considered, based on scientific studies, and specifically designed to protect against significant environmental harm. An agency's mitigation discussion in an EA or EIS should focus on the effectiveness of any proposed mitigation measures.
- 40. Agencies may not avoid gathering the information needed to assess a proposed project's environmental impact by committing to "mitigation measures" that take the form of information-gathering efforts to be taken after the project commences. Mitigation measures may help alleviate impacts after construction, but do not help in evaluating and understanding the impacts of the proposal before construction. Reliance on mitigation measure to provide information unavailable at the time of project approval assumes—regardless of what effects construction may have on resources—that there are mitigation measures that might counteract the effect, without first understanding the extent of the problem. In other words, such an approach is based on an implicit assumption that all impacts are mitigable.
- 41. Moreover, the use of mitigation measures as a proxy for baseline data frustrates NEPA's "stop-and-think" disclosure purposes—it precludes careful consideration of a proposal's impacts before the point of commitment and deprives the public of the opportunity to play a role in the decisionmaking process because the any data collected after project approval are not available for public comment.

An EA or EIS must rigorously explore and objectively evaluate reasonable alternatives

1 2 to the proposed action, including a baseline alternative of taking "no action." 40 C.F.R. § 1502.14. 3 The NEPA implementing regulations refer to the selection and review of alternatives as "the heart" of 4 the environmental analysis. 40 C.F.R. § 1502.14. Comparison of the alternatives helps to "sharply 5 defin[e] the issues and provid[e] a clear basis for choice among options by the decision maker and the 6 public." Id. The agency must "study, develop, and describe appropriate alternatives to recommend 7 courses of action in any proposal which involves unresolved conflicts concerning alternative uses of 8 available resources." 42 U.S.C. § 4332(2)(E). Even if an agency prepares only an EA, it may violate

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43. An EA or EIS must also consider a project's cumulative impacts. A cumulative impact is "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other action." 40 C.F.R. § 1508.7. "Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time." *Id.* A cumulative impacts analysis must be more than perfunctory; it must provide a useful analysis of the cumulative impacts of past, present, and future projects. To be useful to decision makers and the public, the cumulative impacts analysis must include some quantified or detailed information; general statements about possible effects and some risk do not constitute a "hard look" absent a justification regarding why more definitive information could not be provided.

В. The Federal Land Policy and Management Act

NEPA if it limits its examination to its primary, preferred alternatives.

44. FLPMA is the "organic act" for BLM and governs the agency's management of public lands and resources. In FLPMA, Congress declared that is the policy of the United States to manage the public lands "in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values" and that, "where appropriate, will preserve and protect certain public lands in their natural condition." 43 U.S.C. § 1701(a)(8).

45. FLPMA provides that "[t]he Secretary shall manage the public lands . . . in accordance with the land use plans developed by him under section 1712 of this title." 43 U.S.C. § 1732(a). "All . . . resource management authorizations and actions" must "conform to the approved plan." 43 C.F.R. §§ 1610.5-3(a). If a proposed action is not consistent with the applicable land use plan, BLM must rescind the proposed action or amend the plan. 43 C.F.R. §§ 1610.5-3, 1610.5-5.

- A6. The approved land use plan applicable to the Project is the Carson City Consolidated Resource Management Plan ("Carson City RMP" or "Plan"). The Plan contains "Standard Operating Procedures," including the requirement that "[a]ll operations by authorized public land users will be conducted in a manner as will avoid: . . . changing the character, or causing the pollution or siltation, of rivers, streams, reservoirs, ponds, water holes, or springs; and . . . damaging fish and wildlife resources and habitats." Another Standard Operating Procedure provides that "[a]uthorized public land users will prevent or control damage to scenic, aesthetic, cultural and environmental values (including damage to fish and wildlife habitat)."
- 47. The Plan also contains several goals and objectives related to wildlife. Among these are: "[p]repare and maintain on a continuing basis, an inventory of the wildlife and fish resources, plant communities, and threatened, endangered, and candidate[] (special status) species on the public lands"; and "ensure full consideration of the wildlife, fish, and special status species in land use plans and other BLM activities."
- 48. The Plan's "desired outcomes" for wildlife include the following: "[m]aintain and improve wildlife habitat, including riparian/stream habitats, and reduce habitat conflicts while providing for other appropriate resources uses," and "[m]aintain or improve the habitat condition of meadow and aquatic areas."
- 49. The Plan further recognizes that "cultural resources are . . . fragile, irreplaceable resources with potential public and scientific uses, representing an important and integral part of our Nation's heritage." Cultural resources recognized based on "traditional use" are to be "managed in ways that recognize the importance ascribed to them," and BLM must "seek to accommodate their continuing traditional use." The Plan directs BLM to protect cultural and paleontological resources

"to the maximum extent practicable." Project-level decisions are required to "consider the significance of the proposed project and the sensitivity of cultural resources in the affected area." Where potential impacts to cultural resources are identified, "avoidance of cultural properties is the preferred treatment." The Plan further directs BLM to consider "the views of Native Americans . . . prior to BLM decisions or approvals that could result in changes in land use, physical changes to lands or resources, [or] changes in access."

- 50. Finally, the Plan expressly incorporates BLM's "Special Status Species" policy. Under this policy, BLM must "initiate proactive conservation measures that reduce or eliminate threats to Bureau sensitive species to minimize the likelihood of and need for listing of these species under the [Endangered Species Act ("ESA"), 16 U.S.C. §§ 1531-1544]." Specifically, BLM must "ensure that actions requiring [BLM] authorization or approval . . . are consistent with the conservation needs of special status species and do not contribute to the need to list any special status species, either under the provisions of the ESA or other provisions of [BLM sensitive species] policy."
- 51. BLM must also manage sensitive species and their habitats "to minimize or eliminate threats affecting the status of the species or to improve the condition of the species' habitat," by, among other things, "prioritizing Bureau sensitive species and their habitats for conservation action." In other words, BLM must implement "practices to reduce or eliminate threats affecting the status of the species, or improve the condition of the species' habitat on BLM-administered lands." "Implementation-level planning should consider all site-specific methods and procedures needed to bring species and their habitats to the condition under which management under the Bureau sensitive species policies would no longer be necessary."

C. The Religious Freedom Restoration Act and the American Indian Religious Freedom Act

52. Congress enacted RFRA to provide broad protection for religious liberty. In RFRA, Congress codified Constitutional jurisprudence by expressly finding that "governments should not substantially burden religious exercise without compelling justification." 42 U.S.C. § 2000bb(a)(3). RFRA provides that "[g]overnment shall not substantially burden a person's exercise of religion even

if the burden results from a rule of general applicability," unless the Government demonstrates that "application of the burden to the person—(1) is in furtherance of a compelling governmental interest; and (2) is the least restrictive means of furthering the compelling governmental interest." 42 U.S.C. § 2000bb-1(b). An affected person may bring suit against the government for appropriate relief, which may include injunctive relief. 42 U.S.C. § 2000bb-1(c).

53. The American Indian Religious Freedom Act ("AIRFA") states that "it shall be the policy of the United States to protect and preserve for American Indians their inherent right of freedom to believe, express, and exercise the traditional religions of the American Indian, Eskimo, Aleut, and Native Hawaiians, including but not limited to access to sites, use and possession of sacred objects, and the freedom to worship through ceremonials and traditional rites." 42 U.S.C. § 1996.

D. Relevant Policies Concerning Indigenous Sacred Sites

- i. Executive Order 13007
- 54. Executive Order 13007 makes it the policy of the U.S. government to protect indigenous sacred sites. Defendants have recognized that the Hot Springs is a sacred site under Executive Order 13007. The Order defines a sacred site as:

[A]ny specific, discrete, narrowly delineated location of Federal land that is identified by an Indian tribe, or an Indian individual determined to be an appropriately authoritative representative of an Indian religion, as sacred by virtue of its established religious significance to, or ceremonial use by, and Indian religion; provided that the tribe or appropriately authoritative representative of an Indian religion has informed the agency of the existence of such a site.

- 55. Where a sacred site is properly identified, federal agencies must "to the extent practicable, permitted by law, and not inconsistent with essential agency functions, (1) accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners and (2) avoid adversely affecting the physical integrity of such sacred sites."
 - ii. Joint Secretarial Order 3403
- 56. Joint Secretarial Order 3403, issued by the Secretary of the Interior and the Secretary of Agriculture on November 15, 2021, seeks to "ensure that the Department of Agriculture and the Department of the Interior . . . and their component Bureaus and Offices are managing Federal lands

and waters in a manner" that protects "the treaty, religious, subsistence, and cultural interest of federally recognized Indian Tribes."

- 57. The Order recognizes that "Tribal consultation and collaboration must be implemented as components of, or in addition to," existing federal land management priorities such as energy production, and that "the Departments will benefit by incorporating Tribal expertise and Indigenous knowledge into Federal land and resources management."
- 58. The Order specifically directs each Department to "[e]nsure that all decisions . . . relating to Federal stewardship of Federal lands, waters, and wildlife under their jurisdiction include consideration of how to safeguard the interests of any Indian Tribes such decisions may affect." Through the Order, the Departments commit to consultation and collaboration with Indian Tribes "to ensure that Tribal governments play an integral role in decision making related to the management of federal lands and waters." Further, the Departments state that they "will engage affected Indian Tribes in meaningful consultation at the earliest phases of planning and decision-making relating to the management of Federal lands to ensure that Tribes can shape the direction of management." This includes giving "due consideration to Tribal recommendations on public lands management."

E. November 9, 2021 Inter-Agency Memorandum of Understanding Regarding Protection of Indigenous Sacred Sites.

- 59. On November 9, 2021—14 days before BLM approved the Project—Interior, the U.S. Department of Agriculture, the U.S. Department of Transportation, the U.S. Department of Energy, the U.S. Environmental Protection Agency, CEQ, the Advisory Council on Historic Preservation, and the Tennessee Valley Authority entered into a memorandum of understanding ("MOU") concerning the protection of indigenous sacred sites.
- 60. The MOU recognizes that the spiritual and religious practices and traditions of indigenous peoples are closely tied to the natural world and specific places. As explained in the MOU, "[t]he connection to place is essential to the spiritual practice and existence of Indian Tribes." The MOU notes that indigenous peoples "share an essential truth of the interconnectedness to nature and all life." One consequence of this "essential truth" that the MOU acknowledges is that "[d]esecration

of sacred places . . . has had traumatic impacts . . . and has enduring negative impacts on the social, cultural, spiritual, mental, and physical wellbeing of Indian Tribes."

- 61. The MOU acknowledges that federal agencies, "including those that approve or fund projects, are responsible for assessing and considering the potential impacts of their decisions on sacred sites and historic properties of traditional cultural and religious importance." It directs the signatory agencies to "take a forward-thinking approach" that "not only seek[s] to avoid adverse actions," but also encourages active collaboration with indigenous peoples in the management of natural resources.
- 62. The MOU incorporates the Executive Order 13007's definition of "sacred site." In addition, it acknowledges that "sites sacred to Indian tribes . . . often occur within a larger landform or are connected through physical features or ceremonies to other sites or a larger sacred landscape." It directs federal agencies to "consider these broader areas and connections to better understand the context and significance of sacred sites." According to the MOU, sacred sites may include, but are not limited to "geological features, bodies of water, archeological sites, burial locations, traditional cultural properties, plant communities, and stone and earth structures that may be present on tribal, public, and private lands."
- 63. Through the MOU, the signatory Departments and agencies agree to, among other things, "enhance the Participating Agencies' efforts to integrate consideration of sacred sites early into decision-making, regulatory, and consultation processes to ensure that agency actions acknowledge and honor the importance of sacred sites." The signatories also agree to "[d]evelop and enhance best practices and policies for meaningful consultation with Indian Tribes . . . that give clear guidance on the duties and responsibilities of Federal agencies to address and incorporate traditional Indigenous knowledge and views when assessing the impact of Federal actions on sacred sites."

F. The United States' Trust Duties to the Tribe

64. The U.S. Supreme Court has long recognized the undisputed existence of a general trust relationship between the United States and the Indian people. The trust duty commits the federal government to protect Indian tribes' rights, resources, and interests.

65. In discharging the United States' duties to the Tribe, federal agencies must observe obligations of the highest responsibility and trust and the most exacting fiduciary standards. To satisfy their trust obligations when administering generally applicable law, agencies must show compliance with general regulations and statutes not specifically aimed at protecting Indian tribes, including NEPA's requirement to prepare an EIS for major federal actions with potentially significant environmental effects.

G. The Administrative Procedure Act

- 66. The APA provides for judicial review of federal agency actions for persons adversely affected or aggrieved by the agency action. 5 U.S.C. § 702. Agency action made reviewable by statute and final agency action for which there is no other adequate remedy are subject to judicial review. *Id.* § 704.
- 67. The APA requires a reviewing court to "compel agency action unlawfully withheld or unreasonably delayed" and "hold unlawful and set aside agency action, findings, and conclusions found to be . . . arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." *Id.* § 706.
- 68. An agency action is arbitrary and capricious if the agency relied on factors which Congress did not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.

FACTUAL BACKGROUND

A. Dixie Meadows and Dixie Hot Springs (*Paumu*)

69. Dixie Meadows is a large perennial alkali desert wetland comprising less than 1,000 acres across private, BLM, and Navy lands in Churchill County, Nevada. The wetlands are formed by the Dixie Meadows Hot Springs, a series of seeps and springs arranged in a north-south orientation along the western edge of the Dixie Valley basin, at the foot of the Stillwater mountain range, over approximately two miles.

- 70. Water from the Hot Springs discharges at various rates and various temperatures. Discharge rates range from less than 1 to as much as 300 gallons per minute, while temperatures range from cold to as high as 182 degrees Fahrenheit. High-temperature discharges from the Hot Springs keep surface water temperatures warm through the winter, allowing temperature-sensitive species such as the Dixie Valley toad to persist where they would otherwise freeze.
- 71. The Hot Springs are directly connected to the deep geothermal reservoir from which the Project would extract hot water or brine to generate electricity. Although the precise flowpaths are either unknown or disputed, it is generally accepted that geothermal water moves upward through subsurface faults and mixes with water from a shallow, precipitation-fed cold-water aquifer before discharging at the springs.
- 72. Dixie Meadows is sacred to the Tribe and its members, who have utilized the springs for their traditional cultural and religious practices since time immemorial. The Tribe's reverence for the springs is based on their connection to the natural world and the Creator, in addition to their reputed healing properties. The sacred Hot Springs site extends to the surrounding ecosystem and landscape.
- 73. A seminal ethnographic text concerning the Fallon Paiute Shoshone Tribe is titled "In the Shadow of Fox Peak," by Catherine Fowler, printed by the United States Fish and Wildlife Service. The text states:

Hot springs occurring in various areas of Cattail-eater territory were all considered to be sacred places. Due to White settlement and development, however, most were rendered inaccessible to Indian people by the early 1900s. The exception was the large hot springs in Dixie Valley (*paumagwaitu*), toward the north end. This site was frequented by people wanting medicinal help for pains and sores, as the hot water and had curative properties. Wuzzie George and many other people from the Stillwater area visited this spring on a regular basis, taking baths in the hot mud and water. They placed the mud on parts of their bodies that were affected, and left it there when they returned home. They also took mud with them for later application. This hot spring, as others, had to be paid as well—in beads or money. While bathing, one talked to it, saying, "I give you this, please help me." The spring rarely refused a request.

The report cites ethnographic accounts from as early as 1876 describing the importance of the springs.

- 74. In a recent interview focused on the Project, Wuzzie George's son, Ashley George, reflected on his frequent visits to Dixie Meadows Hot Springs, and voiced his serious concerns with the Project. He explained that purported mitigation measures that would "adjust" impacts to the Hot Springs through experimentation with geothermal injection are harmful and inadequate, because the sacred power of the Hot Springs derives from its natural and undisturbed state. Because the Hot Springs' sacredness derives from the Earth, the changes in pressure and flows that necessarily result from extraction and reinjection of geothermal fluids would alter the natural state of the Hot Springs and muds and diminish their healing powers, causing great harm to the Tribe and its members. Under Tribal beliefs, only a medicine man may alter the Hot Springs in any way, and allowing harm to the Hot Springs risks consequences to the Tribe and its members from the Creator.
- 75. Because the Tribe considers *paumu* sacred, the degradation of the Hot Springs substantially burdens Tribal members' cultural and spiritual practices, as well as their traditional religious expression. The spiritual significance of these sites for Tribal members is permanently damaged when the sites are disturbed, altered, or destroyed.
- 76. In addition to having cultural spiritual, and religious significance for Tribal members, the Dixie Meadows provides habitat for a wide variety of wildlife species, including birds, amphibians, and springsnails. Some of these species are highly imperiled and at least one of them, the Dixie Valley toad, is found nowhere else on Earth. Due to the perennial nature of the Hot Springs and the warm temperature of the water, the area provides a rare and valuable oasis for wildlife in an otherwise harsh and arid climate. In the EA, BLM identifies over 40 species of sensitive plants, invertebrates, amphibians, birds, and mammals that have been observed or may be present in the Project area.

B. The Dixie Valley Toad

77. The Dixie Valley toad (*Anaxyrus williamsi*) is a small species of Western toad found only within and around the Dixie Meadows wetland complex. The toad has persisted at Dixie Meadows for millennia since it last had contact with its closest taxonomic relatives. It spends the vast majority of its life cycle in very close proximity to the thermal waters in Dixie Meadows, and is highly

adapted to both the temperature regime and specific water chemistry in the area. Evidence indicates that toads also use upland terrestrial habitats directly adjacent to the wetlands.

- 78. The Dixie Valley toad was formally described as a unique species in 2017. BLM has designated the Dixie Valley toad a "sensitive" species. On information and belief, the Nevada Department of Wildlife ("NDOW") is currently pursuing state-level protections for the Dixie Valley toad.
- 79. As cold-blooded animals, Dixie Valley toads are especially sensitive to changes in water temperature. Evidence shows the toad relies on a stable thermal regime to survive the long, harsh Great Basin winter. Lower-temperature spring discharge will reduce the area of thermal refuge available to the toad, or possibly eliminate it altogether, resulting in the potential extinction of the species. With regard to reproduction, decreases in water temperature may shorten the length of the toad breeding season and could also impact the development of eggs and tadpoles. Dixie Valley toads, like other amphibians, are particularly vulnerable to changes in water chemistry because they have semi-permeable skin and their eggs and tadpoles develop in the water.
- 80. Government agencies and others recognized the biological and ecological significance of the Dixie Valley toad, as well as its highly imperiled status, long before it was described as a distinct species. In 2008 discussions occurred among State and federal agencies about a Candidate Conservation Agreement for the toad, which would have protected the species as though it had been found "warranted" for listing as threatened or endangered under the ESA. However, this process was eventually abandoned and never completed. On June 27, 2012 the Nevada Department of Wildlife ("NDOW") petitioned BLM to designate Dixie Meadows as an "Area of Critical Environmental Concern," recognizing that the toad's "rarity and habitat limitations make [it] extremely vulnerable to habitat impacts." On information and belief, BLM has either denied or failed to act on NDOW's petition.
- 81. The Dixie Valley toad is threatened by a variety of factors, including its highly restricted range, habitat degradation, invasive species, disease, and climate change. The most immediate threat to the toad's survival, however, is the Project, which, as explained herein, is likely

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to reduce, alter, or eliminate the flow of warm water to the springs that create the toad's wetland habitat. Surface disturbance and grading during Project construction could also crush or bury toads using upland burrows, and toads dispersing into or through terrestrial habitat in the construction area to reach overwintering or thermal refuge areas could be crushed by vehicles or machinery.

C. The Dixie Meadows Geothermal Utilization Project

- 82. The Dixie Meadows Geothermal Utilization Project is a proposal to construct two 30-megawatt ("MW") geothermal powerplants and associated infrastructure, including 18 or more well pads (each 1.5 acres in size) pipelines, access roads, offices, electrical facilities, a control room, various auxiliary buildings, a microwave communication tower, two electrical substations, and transmission lines, all directly adjacent to the Dixie Meadows wetlands and Hot Springs. Because the Project will utilize federal geothermal resources and be constructed primarily on BLM public lands, it requires BLM approval.
- 83. Construction of the project will entail one to two years of construction, including building roads, building two 35-foot tall power plants that each cover 32 acres, and operating drilling masts that are 170 feet tall 24 hours a day, 7 days a week, for extended periods of time. Construction will entail roughly 50 workers on site, and will create significant noise and light pollution as well as fugitive dust emissions.
- 84. Altogether, the Project will entail approximately 2,000 acres of surface disturbance. Once operational, the facility would extract and reinject approximately 12.8 million pounds of geothermal water per hour (28,000 gallons per minute/45,000 acre-feet per year) from the same underground geothermal reservoir that feeds the Dixie Valley Hot Springs. By contrast, information included with the Final EA estimates the total natural spring discharge at Dixie Meadows to be 900 acre-feet per year, though this number is disputed and may be lower.
- 85. To generate electricity, the facility will feed this high-temperature geothermal water through a heat exchanger to volatilize a hydrocarbon-based "binary fluid" such as butane or pentane, which will then turn a steam-powered turbine. BLM has not disclosed the type or amount of binary fluid that would be utilized, but the Final EA states that a comparable 27 MW facility contains 603,000

pounds of pentane in the power generation system at any given time. According to the EA, each of the 30 MW power plants authorized under the Project would likely contain a similar amount of binary fluid. Operation will generate significant noise and light pollution and 12 tons per year of binary fluid emissions.

- 86. The project will be constructed, owned, and operated by ORNI 32, LLC, a subsidiary of Ormat Nevada, Inc. ("Ormat").
 - D. The Center's September 18, 2017 Listing Petition and Positive 90-Day Finding
- 87. On September 18, 2017 the Center submitted a petition to the U.S. Fish and Wildlife Service ("FWS"), requesting that FWS list the Dixie Valley toad as threatened or endangered under the ESA. The petition cited the Project, then in development, as the primary threat necessitating ESA protection.
- even "closed-loop" and "air cooled" facilities such as the two authorized by the Project DR—can have significant adverse impacts on surface water features such as springs as seeps. As the Center described in its petition and in comment letters submitted to BLM as part of the Project's NEPA process, numerous peer-reviewed analyses of geothermal energy development have concluded that changes to surface manifestations of geothermal waters are inherent in the use of geothermal energy production technology. In its petition and comment letters, the Center cited historical evidence showing that natural thermal features like the Dixie Valley Hot Springs have been severely degraded or destroyed during the development and initial production stages of many high-temperature geothermal power systems. According to one paper cited in the petition and attached to the Center's comments to BLM, "[c]hanges in the surficial features and land elevations accompanying geothermal development should be viewed as the rule, rather than the exception."
- 89. The Center also included with its petition a technical memorandum by hydrologist Tom Myers, Ph.D., describing the physical mechanisms through which geothermal development may impact the Dixie Valley toad's habitat in Dixie Meadows. Dr. Myers noted first that discharge in the Dixie Meadows geothermal system is relatively small, compared to the amount of water proposed for

pumping and reinjection under both alternatives analyzed in BLM's NEPA process for the Project. Because of this, Dr. Myers warned that pumping for geothermal development, which would cycle several orders of magnitude more water than the springs' natural discharge through the power generation facilities, could overwhelm the natural system. Second, Dr. Myers explained that the pumping and reinjection proposed as part of the Project would relieve hydraulic pressure from some parts of the system while over-pressurizing others, thus changing the paths through which warm water flows to the surface and likely affecting the quality and quantity of spring discharge.

- 90. The Center's petition also described several documented instances in which geothermal power development harmed adjacent surface water features, including, in some cases, completely drying and desiccating these features. These included the example of Jersey Valley, approximately forty miles northeast of Dixie Meadows. In early 2011, the Jersey Valley Geothermal Project—another closed-loop, dry-cooled facility constructed and operated by Ormat and located on BLM lands—went online. There was an immediate sustained decrease in flows at nearby Jersey Valley Hot Springs, and within three years the springs had stopped flowing entirely. As reported in the Center's petition and comments, BLM staff publicly stated that the catastrophic impacts on springflow at Jersey Valley Hot Springs were "likely the result of pumping and reinjection at the Jersey Valley Geothermal Project." BLM subsequently issued an EA and Decision Record authorizing Ormat to re-establish surface water at Jersey Hot Springs with produced geothermal water supplied via pipeline. While this may provide temporary relief, it is not known whether Jersey Hot Springs will ever have natural flow again.
- 91. The Center's petition further explained that even if geothermal development did not cause the springs to dry up entirely, there remained a high likelihood that it would alter the temperature and chemical composition of water in the springs, thus disrupting the delicate ecological balance in which the Dixie Valley toad has evolved over thousands of years.
- 92. Finally, the Center's petition explained that decreases in water temperature from geothermal power generation could increase the Dixie Valley toad's susceptibility to chytrid fungus or *Bd*, a deadly pathogen that is a leading driver of amphibian population declines and localized extinctions globally. *Bd* has been detected in bullfrogs in Dixie Meadows.

93. On June 26, 2018, FWS issued a finding that the Center's petition presented "substantial scientific or commercial information indicating" that listing the Dixie Valley toad as threatened or endangered under the ESA "may be warranted." In a "petition review form" accompanying the finding, FWS acknowledged that "[t]he toad's life cycle is entirely reliant on dependable flows from the springs at Dixie Meadows, and a substantial library of literature exists indicating that if geothermal energy production occurs at Dixie Meadows, habitat for the Dixie Valley toad could be reduced or eliminated." FWS further stated that the Center's petition "provid[ed] substantial information regarding the difficulty of detecting negative impacts and the ability to mitigate for these impacts."

94. Under the ESA, 16 U.S.C. § 1533(b)(3)(B), FWS was required to issue a final determination as to whether the Dixie Valley toad is warranted for ESA listing by June 26, 2019. However, FWS failed to timely issue any such decision. FWS's outstanding violation of Section 1533(b)(3)(B) with respect to the Dixie Valley toad is currently the subject of separate litigation. *See* Complaint, *Ctr. for Biological Diversity v. Haaland*, No. 1:20-cv-00579-EGS, ECF 1, ¶¶ 191-195 (D.D.C. Feb. 27, 2020).

E. The Bureau of Land Management's May 9, 2017 Draft EA

95. BLM issued a Draft EA for the Project on May 9, 2017. Throughout the Draft EA, BLM asserted that potentially significant impacts to nearly every resource analyzed—including water, wildlife, vegetation, and indigenous cultural and spiritual values—would be mitigated through implementation of an "Aquatic Resources Monitoring and Mitigation Plan" ("ARMMP"). For example, the Draft EA stated that unspecified "monitoring and mitigation strategies" that "would be outlined in the Aquatic Resources Monitoring and Mitigation Plan" would effectively mitigate any "adverse impacts on hydric soils, wetland and riparian areas, aquatic habitat, and special status species." The Draft EA further stated that implementing the ARMMP would "allow any direct or indirect adverse impacts on [the] Dixie Valley toad . . . and habitat[] to be avoided, minimized, and mitigated." The ARMMP is referenced at least 29 separate times in the Draft EA.

96. The Draft EA acknowledged that Dixie Meadows likely qualifies as a Traditional Cultural Property ("TCP") due to its spiritual, religious, and cultural importance to the Tribe. The Draft EA noted that:

Dixie Hot Springs has been used by the [Tribe] as a traditional ceremonial and healing place for well over 50 years. The Tribe continue to use the hot springs for ceremonial and healing purposes. The [Tribe] identify Dixie Hot Springs as a sacred locality and one which they consider important to maintaining Western Shoshone/Northern Paiute cultural beliefs and practices.

- 97. While the Draft EA briefly acknowledged that the Project could "have a significant adverse effect on Native American concerns," it then stated any potential impacts to Native American cultural or religious practices could be avoided or mitigated through implementation of the ARMMP.
- 98. Despite the Draft EA's reliance on the ARMMP, however, BLM did not provide the ARMMP for public review. In fact, the ARMMP had yet to be developed when BLM released the Draft EA. In a section of the Draft EA entitled "Aquatic Resources Monitoring and Management Plan Summary," BLM stated that "[a]n Aquatic Resources Monitoring and Mitigation Plan would be developed to ensure that significant adverse effects on aquatic resources do not occur from the project."
- 99. Because the ARMMP did not exist when the Draft EA was issued, the Draft EA failed to disclose information necessary to understanding the Project's environmental impact, including the locations where monitoring for potential impacts would occur, the frequency of the proposed monitoring, the methodologies employed in the proposed monitoring, the criteria BLM or the Project operator would use to evaluate monitoring data, the events or observations that would trigger avoidance or mitigation measures, the avoidance and mitigation measures that BLM or the Project operator would employ, and the likely effectiveness of any proposed mitigation.
- 100. Largely because of its reliance on a non-existent ARMMP, the Draft EA contained several other significant omissions. For instance, it failed to analyze the impacts of closed-loop geothermal pumping and reinjection on springs in Dixie Meadows and the Dixie Valley toad. The Draft EA did not specify how much water would be pumped and reinjected during Project operations, and it did not disclose or describe the paths through which geothermal water flows to the surface, or

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the ways in which these flow paths could be impacted by geothermal power generation. The Draft EA did not even disclose the locations at which water would be pumped and reinjected. Instead, the Draft EA stated that "if adverse impacts to temperature or water quantity in groundwater aquifers or surface water features were detected," BLM would employ mitigation measures "outlined in the Aquatic Resources Monitoring and Mitigation Plan." The Draft EA also ignored or minimized other potential impacts, including the possibility that binary fluid from the power generation facilities could leak into the geothermal aquifer.

- 101. The Draft EA analyzed three alternatives: two "action" alternatives, including the "proposed action," and the legally mandated "no action" alternative. The two "action" alternatives did not differ meaningfully from each other in terms of their siting, design, or environmental impact. "The only difference[]" between the two alternatives, according to the Draft EA, was "a different gen-tie [transmission line] route." Under the "proposed action" the transmission line associated with the project would run north for 48.1 miles to Ormat's Jersey Valley geothermal facility. Under the EA's "Alternative 1," the line would run south for about 31.3 miles to NV Energy's Fort Churchill to Gonder transmission line. Apart from the transmission line route, both alternatives would entail the same two power plants, the same 18 or more geothermal wells, the same access roads and associated rights-of-way, the same offices, control facilities, and auxiliary buildings, the same two electrical substations, and the same 2,000 acres of associated ground disturbance. For most of the resources considered, including air quality, water, soil, wildlife, vegetation, and indigenous sacred sites the Draft EA concluded that the impacts of "Alternative 1" would be the same or similar to the "proposed action."
- 102. The Tribe and the Center submitted detailed comment letters to BLM responding to the Draft EA. The Center's comment letter included another technical memorandum from Dr. Myers concluding that many of the Project's likely impacts to springs, wetlands, and wildlife in Dixie Meadows could not be effectively mitigated due to the unpredictable nature of hydrologic changes and a lack of baseline data regarding the geothermal aquifer and flowpaths to the surface. Dr. Myers further concluded that reinjection, as proposed in the Draft EA, could not fully maintain hydraulic pressure in the geothermal system or prevent changes to surface water flow.

103. The Center's comment letter further noted that BLM has in the past been more forthright with the public about the potential impacts of geothermal development on surface water resources. In the EA for the Jersey Valley project, for example, BLM stated:

By their very nature, geothermal fluid production and injection operations change the distribution of pressures in the developed geothermal reservoirs. . . . [I]t is possible that . . . geothermal production and injection operations could alter the pressures in the hot spring thermal reservoirs sufficiently to cause the flow of the hot springs to increase, diminish, or even cease.

- 104. The Tribe's comment letter detailed the cultural, religious, and spiritual significance of the springs to the Tribe. The Tribe also explained that, even absent extraction of geothermal fluid, the construction of major powerplants, with associated constant noise, light, and obstruction of views, would significantly detract from the Tribe's ability to exercise its cultural, religious, and spiritual traditions.
- 105. The Tribe provided a technical memorandum from hydrologist Shane Dyer. Mr. Dyer identified the proposed monitoring and mitigation plan as inadequate, because, among other reasons, "[m]onitoring is viable as a maintenance plan but may have minimal effect on prevention of impacts, as it may only detect an alteration that, in some cases, cannot be reversed or responsibly mitigated." Mr. Dyer concluded that "[t]he proposed method of mitigation appears to be 'try it out and see what happens,' rather than a careful study of the potential impacts and their extent with reasonable and transparent mitigation measures that can be vetted by the public." Mr. Dyer also raised significant concerns that the Project could repeat the dire and permanent harms caused to the nearby Jersey Valley hot springs.
- 106. Because of the potentially significant nature of the Project's impacts to sensitive natural resources, and because BLM's proposed mitigation measures had not been developed or evaluated for effectiveness, the Center requested in its comment letter that BLM prepare an EIS to fully analyze and disclose the Project's impacts.
- 107. FWS and NDOW also provided comments on the Draft EA. Both agencies raised concerns about the Draft EA's lack of specific information about the Project's design, its lack of specific information regarding affected resources, including the Hot Springs and the Dixie Valley toad,

and the fact that BLM had not provided the ARMMP for public review. FWS also commented that some of the Project's likely impacts to the Hot Springs and associated ecosystem may not be avoidable or mitigable.

F. The BLM's Revised Draft EA and Aquatic Resources Monitoring and Mitigation Plan

- 108. On January 13, 2021, BLM issue a Revised Draft EA ("RDEA") for the Project. The RDEA included as an appendix a "Final Draft" version of the ARMMP, produced by Ormat's environmental consultants. The ARMMP described the Project and the affected environment in general terms, discussed Ormat's "conceptual hydrogeologic model,"—the company's theoretical understanding of the physical properties of the geothermal system—and described the proposed mitigation scheme.
- 109. The "Final Draft" ARMMP omitted key information about the affected environment and the proposed mitigation measures. As FWS stated in comments, the ARMMP was not a fully developed mitigation protocol but rather a "plan to make a plan." The document admitted that neither BLM nor Ormat had collected important baseline data, and that the ARMMP "would be updated as those monitoring data are collected, and baseline conditions and thresholds are refined." "Drilling and flow/injection tests," critical to understanding the hydrology of the springs and geothermal system, had not yet been performed.
- and/or refining of baseline conditions and thresholds[] would begin . . . upon the signing of the Record of Decision" for the Project, inverting NEPA's mandate that baseline data be collected and mitigation measures developed and analyzed for effectiveness *before* project approval. In the document, baseline conditions for key indicators such as "hydraulic head" (hydraulic pressure in the aquifer), water temperature, water chemistry, vegetation cover, aquatic habitat extent, "hydric soil indicators," Dixie Valley toad abundance, and springsnail abundance were marked "currently unknown." Although the "Final Draft" ARMMP stated that this data would be collected in the future as part of Project

implementation, it did not commit to collecting and analyzing this data before Project construction, before the beginning of Project operations, or by a date certain.

- 111. The "Final Draft" ARMMP purported to "identif[y] a framework of proposed adaptive management actions and mitigation measures based on monitoring results, baseline conditions, and threshold triggers," but, as noted, it failed to identify baseline conditions for most of the indicators selected. In addition, the plan left many of the "mitigation measures" and the "triggers" for these measures undefined. "Critical" triggers and management responses were marked "Currently Unknown or N/A" for: surface water flow, "hydraulic head," water chemistry, vegetation cover, Dixie Valley toad abundance, and aquatic habitat extent, and wetland extent.
- 112. The "Final Draft" ARMMP did not even commit BLM or the Project operator to taking action upon discovering that a monitoring threshold had been exceeded. The document stated that if "a monitoring threshold or critical threshold is exceeded," then "consultation would occur" between BLM, the Project operator, and cooperating agencies. Whether to take any particular action following such consultation appears to have been largely left to the discretion of BLM and the Project operator.
- actions could ultimately be taken following such "consultation"—"Code A," "Code B," and "Code C." Most observed impacts would be addressed via "Code A" which required a "discuss[ion] and reevaluat[ion]" within 10 days of exceeding a threshold, "to determine if additional adaptive management or mitigation is required." "Code A," in other words, consists solely of a discussion regarding the adequacy of current monitoring or mitigation. "Code B" requires a discussion and determination within 5 days concerning "the appropriate adaptive management or mitigation action to be taken," and "Code C" requires such a discussion and determination within 48 hours. But neither "Code B" nor "Code C" commit BLM and Ormat to taking action within a specified time, specify mitigation measures that could be taken in response to particular impacts, or include information that would enable decisionmakers and the public to evaluate the effectiveness of any proposed mitigation measures.

114. "Code B" and "Code C," moreover, were generally not available until 2-3 consecutive monthly observations showed exceedance of a threshold. This means that under the "Final Draft" ARMMP, effective mitigation action would not be taken until impacts were observed for 2-3 consecutive months, and perhaps longer. This could allow for significant reductions in springflow, and potentially catastrophic alterations to Dixie Valley toad habitat, before any corrective action could be taken. Further, "Code B" and "Code C"—the only responses contemplating corrective (albeit undefined) action—were not available in the event that thresholds for Dixie Valley toad and springsnail abundance were exceeded. The only management response provided for in these circumstances was "Code A"—a discussion of the adequacy of monitoring and mitigation.

when thresholds were exceeded. The plan also specified the "feasibility" of these various options (i.e., the degree to which the various measures were reasonably capable of implementation by BLM and the Project operator). Only one of the 19 proposed mitigation measures listed—"providing geothermal fluids to the affected hot springs . . . to approximately restore the pre-production temperature, flow, stage or equivalent, and basic thermal water chemistry of the hot springs," was considered "high" feasibility. There are several problems with this measure which were not addressed in the RDEA, "Final Draft" ARMMP, or in subsequent analyses from BLM. Most importantly, it was never established that natural conditions could be effectively replicated with piped-in water; nor did the plan purport to address long-term and potentially irreversible impacts to springflow from geothermal pumping and reinjection. Further, no information was provided as to how the Project operator would mimic the flow rate, temperature, and geochemical composition of the original springflow, or how suitable ecological conditions would be maintained. As discussed below, comments from FWS and NDOW revealed the effectiveness of this proposal to be highly uncertain and controversial.

116. One additional measure—"[i]mplementing appropriate geothermal reservoir management techniques to adjust the geothermal reservoir pressure regime and reduce and/or reverse these adverse effects to the springs" was considered "high" feasibility for injection wells only; for production wells its feasibility was "low." Several other important potential mitigation options were

considered "low" feasibility under the plan; these included: relocating injection wells, altering the location of pumping or reinjection, and temporary cessation of pumping and reinjection at one or more wells. As with the "replacement water" proposed discussed above, commentators including the Tribe, the Center, FWS, NDOW, and the Navy raised serious concerns going to the feasibility, effectiveness, and adequacy of these proposed mitigation measures.

- 117. Several of the proposed "mitigation" measures, moreover, were not actually responsive to resource concerns or Project impacts, and are more accurately characterized as baseline data collection or planning. These include: "[i]ncrease the frequency, duration and/or timing of monitoring specific parameters at defined monitoring locations," "[w]ork with cooperating agencies/partners to develop a Conservation Agreement/Conservation Strategy to assist in the management and conservation of the Dixie Valley toad," "[c]ontinue [the] population monitoring program to better establish a population baseline," "[i]mplement habitat manipulation and improvement projects for Dixie Valley toad as needed by direction from the NDOW and USFWS," "[w]ork with the BLM and the Navy to reduce the threats of grazing and/or grazing during critical periods for Special Status Species," "[w]ork with the Navy to determine if fencing of springsnail populations and associated spring sources is feasible," "investigate predation and disease threats from nonnative species," and "[w]ork with the Navy to develop a public outreach and education program for Dixie Valley toad."
- 118. The "Final Draft" ARMMP completely lacked discrete commitments, consequences, or requirements, but rather postponed to the future BLM's discretionary determination of what mitigation measures may take place after impacts occur. The plan also assumed, without any rational basis, that impacts to the Hot Springs could be reversed after they occured.
- 119. Once again, BLM's analysis in the RDEA failed to disclose specific information about the Project's design necessary to understating the Project's environmental impact. Neither the "Final Draft" ARMMP nor the RDEA specify where well drilling, pumping, and reinjection would take place. While the RDEA described in general terms a conceptual drilling program, and stated that a "detailed geothermal drilling program" would be developed at a later date, it did not specify where drilling would take place, and did not include specific details regarding the drilling and operation of the

proposed wells. The RDEA also failed to specify the locations where geothermal power plants would be constructed.

- 120. The "Final Draft" ARMMP and RDEA failed to disclose the factual and scientific basis for the few thresholds and responses that had been developed. The plan's primary objective for the Dixie Valley toad was to maintain greater than 80% of toad populations in 85% of toad monitoring areas. But neither the RDEA nor the ARMMP disclosed the basis for concluding that these thresholds were adequately protective or scientifically supported. Given the lack of baseline data on the toad, moreover, any attempt to define numerical thresholds was an arbitrary and academic exercise. A similar problem was evident regarding temperature. The plan attempted to define temperature thresholds for Dixie Valley toad habitat without any baseline information on what the thermal tolerance of the toad actually is. There was no information to verify that BLM/Ormat's selected temperature range of plus or minus two degrees Celsius would not have adverse impacts on the toad's biology, lifecycle, or abundance.
- 121. Although the RDEA noted a "high likelihood" that "toads use terrestrial breeding habitat in Dixie Meadows," it contained no detailed or quantitative information on the toad's terrestrial habitat use, even though the physical footprint of the Project encompasses much of the terrestrial habitat adjacent to the Dixie Meadows wetlands. The RDEA also failed to disclose and analyze the impacts to the toad from Ormat's proposal to fence off and eradicate much of the toad's terrestrial habitat.
- 122. The Tribe and the Center again submitted detailed comment letters to BLM discussing these and other problems with the RDEA and "Final Draft" ARMMP. Dr. Myers offered another technical hydrologic analysis of the Project and the proposed ARMMP, and noted that the proposal demonstrated a lack of "sufficient understanding of the hydrologic systems near the Dixie Meadows site to develop it for geothermal resources without potentially harming the springs." As Dr. Myers stated, "[t]here [wa]s too little known about the hydrologic connections for monitoring and mitigation to protect the springs."

- 123. The Tribe's comment letter contained a detailed account of the Tribe's historical use of the Hot Springs, and the Hot Springs' spiritual, religious, and cultural importance to Tribal members. The Tribe explained in its letter that any development or alterations near the Hot Springs would destroy their sacred character, irreparably injure tribal interests, and unlawfully interfere with the Tribal members' religious expression.
- 124. The Tribe's letter again explained that harm to the Hot Springs and their associated ecosystem would be devastating to the Tribe, and that it was unacceptable to gamble with the Tribe's sacred resource based on faulty scientific assumptions and an unproven mitigation plan. The Tribe raised significant concern about the "Final Draft" ARMMP's unsupported assumption that the Project that all potential impacts could be mitigated.
- 125. Several other interested parties and government agencies submitted critical comments in response to the RDEA and "Final Draft" ARMMP, including FWS, NDOW, the U.S. Geological Survey, and the Navy.
- 126. The comments of the Center and FWS revealed substantial uncertainty and controversy surrounding the "Final Draft" ARMMP's hydrogeologic conceptual model. Dr. Myers explained that the model, which theorized that geothermal water travels upward through previously undetected "east-northeast trending" faults, was supported only by "a citation to an oral communication with Ormat." Dr. Myers noted that this information was "impossible to review," so the theory could not be properly evaluated. An accurate and detailed understanding of the hydrology and geology of the site is critical to implementation of the proposed mitigation measures, many of which involve manipulating the ways in which geothermal water travels to the surface.
- 127. FWS provided extensive criticism of the hydrogeologic conceptual model in a comment matrix obtained by the Center through the Freedom of Information Act. FWS's hydrological expert, Sue Braumiller, wrote that "if accepted as is, the proposed Hydrogeologic Conceptual Model would significantly and adversely affect the interpretation of any changes detected at depth . . . as well as the development and implementation of mitigation measures." FWS observed that the geologic information on which the ARMMP model was based lacks substantial supporting evidence;

were "known at [only] two locations." FWS also criticized the model's characterization of the area's geology, noting unsupported conclusions and assumptions that could "significantly and adversely impact the interpretation of any changes detected through . . . monitoring and the future development and implementation of mitigation measures." FWS also noted, like Dr. Myers, that much of the information supporting the conceptual model was not disclosed in the RDEA and "Final Draft" ARMMP, and that the model's basis appeared to be a "verbal communication" with the Project developer.

specifically, "the relative locations/depths of major bedrock units defining the geothermal system"

- 128. The Tribe, the Center, FWS, NDOW, and the Navy all commented to BLM on the apparent lack of baseline data supporting the RDEA and "Final Draft" ARMMP, the high degree of uncertainty regarding the Project's impacts to the Dixie Valley Hot Springs and the Dixie Valley toad, and the inadequacy of the proposed mitigation measures.
- 129. Dr. Myers concluded that the Project could not be developed based on the information provided "without substantial harm to spring/wetland resources." He also observed that one proposed mitigation option—changing the location or rate of pumping and injection—was a "trial and error" process that would be extremely difficult to implement without a detailed and accurate model of the geothermal system.
- 130. FWS noted that "the production and injection plan hasn't been developed yet" and that effective locations for reinjection had not been identified.
- and, consequently, "it [was] not known how many seasons will be needed to establish the baseline." NDOW noted that "[t]he cooperating agencies" such as NDOW and FWS, would need additional time "to review current and historical data after a baseline has been established before triggers for corrective action" could be developed or evaluated. According to NDOW, this necessary data collection and analysis "may not be feasible to complete before 2022." (This data collection has not been completed as of the filing date of this Complaint, and under BLM's Decision Record, may or may not take place concurrently with Project construction.) NDOW also took issue with the lack of specific detail in the

proposed mitigation measures, noting the plan "points to a singular method of mitigation to respond to hydrological or wetland habitat changes"—providing "replacement water," or refilling the springs with piped-in geothermal fluid—"but does not address which water sources would be used, or how the hydrology, chemistry, and temperatures of the Dixie Meadows spring complexes would be achieved and sustained." NDOW warned that "[m]itigation for cooling of hot springs is missing" from the plan. NDOW suggested "permanent shut down of geothermal aquifer utilization" as the preferred mitigation method should impacts occur to the springs. Finally, NDOW recommended that, because impacts for the project "may not be acceptable," and "mitigation may not be suitable," BLM should prepare an EIS.

- 132. The Navy, meanwhile, found the "Final Draft" ARMMP to be "inadequate and incomplete," and raised "concern[] about the general lack of information on the biological monitoring plan, designation of triggers for mitigation for the Dixie Valley Toad and Spring Snails, proposed mitigation actions for these species and long term monitoring for the species and environment."
- 133. The RDEA analyzed the same two "action" alternatives that were described in the Draft EA: one with a transmission line running north, and one with the transmission line running south. The two alternatives were otherwise the same, and would have the same or similar impacts on Dixie Meadows, the Hot Springs, the Dixie Valley toad, the sacred character of the area for the Tribe, and other important and sensitive resources.
- even acknowledge multiple projects and proposals in the vicinity of the proposed Project that could have significant environmental impacts. These include Ormat's Comstock project, another geothermal development targeting the same underground geothermal reservoir as the Project. The Center and FWS both commented on the omission of the Comstock project, with FWS observing that "both power plants" could "potentially impact the water resources and associated wetlands at Dixie Meadows." The RDEA also failed to mention or analyze the Dixie Valley Groundwater Export project, a proposal by Churchill County to export billions of gallons of groundwater from Dixie Valley via pipeline for agricultural, residential, and industrial development in and around Fallon, Nevada. Churchill County

has applied for over 50,000 acre-feet of State water rights in Dixie Valley and has been studying pumping and exporting between 10,000 and 15,000 acre-feet of water per year.

- 135. Because the Project will have potentially significant impacts to aquatic habitats in Dixie Meadows, the Dixie Valley toad, and the Tribe's spiritual, religious, and cultural practices, the Tribe and the Center again requested that BLM prepare an EIS to fully evaluate and inform the public about the Project's impacts.
- 136. BLM initially provided a 15-day public comment period following the release of the RDEA. After the Tribe requested an extension, BLM provided another 15 days. This was the final public comment opportunity for the Project before the Decision Record was signed and the Project approved.
 - G. The National Historic Preservation Act "Section 106" Memorandum of Agreement ("MOA").
- 137. Concurrent with the NEPA process, BLM developed a proposed memorandum of agreement ("MOA") between BLM, Ormat, the Navy, the Advisory Council on Historic Preservation, and the State Historic Preservation Office, in furtherance of the agency's duties under the National Historic Preservation Act, 54 U.S.C. § 306108 (commonly known as "Section 106").
- 138. The MOA appropriately recognizes the Hot Springs as a sacred site to the Tribe under Executive Order 13007, and the Tribe was an invited signatory based on the documented religious and spiritual significance of the site to the Tribe.
- 139. However, the MOA relies almost entirely on the ARMMP to mitigate impacts to the sacred site, and in the event harm occurs to the springs, leaves the decision whether to implement any mitigation to BLM's discretion. The Tribe negotiated in good faith and sought to include meaningful requirements in response to unanticipated impacts, but those inclusions were ultimately rejected. The various agencies signed the MOA in August and September of 2021. The Tribe declined to sign, and explained in a September 15, 2021 letter to BLM that the MOA improperly relied on the assumption that all impacts could be mitigated, failed to include discrete requirements in the event of impacts, and wholly failed to account for the noise, light, and visual impacts of powerplant operations.

H. The BLM's November 23, 2021 Final EA, Finding of No Significant Impact, and Decision Record

- 140. On October 26, 2021, BLM officials visited the Fallon Paiute Shoshone Tribal Council and informed Tribal leaders that the Project would not be approved pending FWS's ESA listing determination for the Dixie Valley toad, and further evaluation of the Project's impacts.
- 141. Without soliciting additional public comment or resolving the issues identified by NDOW, FWS, the Navy, the Tribe and the Center, BLM issued a Final EA, FONSI, and Decision Record for the project on November 23, 2021.
- 142. The Final EA, dated August 2021, is substantially the same as the Revised Draft EA, with a few notable exceptions. The Final EA revises the RDEA's conclusions regarding the feasibility of mitigation, eliminating the RDEA's statement that "avoidance of all potential impacts may not be feasible," and instead asserting that implementation of the ARMMP would mitigate any potential impacts. However, no new information or analysis is provided to substantiate this change, and the Final EA fails to describe the factual and scientific basis for BLM's conclusions, as required by NEPA and the APA.
- 143. The Final EA briefly discusses environmental justice, and acknowledges that the Tribe bears a disproportionate burden of the impacts created by the Project. However, the Final EA improperly determines that these impacts are appropriately mitigated or eliminated by the implementation of the AARMP and MOA.
- 144. The Final EA also revises the RDEA's conditional language in some places, changing the verb "could" to "would" in discussing the efficacy of mitigation measures. Again, the Final EA provided no new information to substantiate these changes.
- 145. The Final EA's implications of certainty cannot be rationally supported or explained in light of the limited changes to the ARMMP between issuance of the RDEA and approval of the Project. For example, the Final EA acknowledges that "specific benchmarks and thresholds associated with objectives for Dixie Valley toad and springsnail habitat have not yet been identified." This lack of specific information makes it impossible for decisionmakers and the public to evaluate the

effectiveness of the proposed mitigation measures, and undercuts BLM's assertions that all impacts can be mitigated.

- version but contains no new information and retains the same basic framework. Some monitoring intervals are changed from monthly to weekly, but BLM provided no evidence from which to conclude that changing these intervals would prevent irreparable harm to the toad or the Dixie Meadows ecosystem. Moreover, because a response under "Code B" or "Code C" would require three consecutive monitoring events, action could not be taken until, at the earliest, three weeks after impacts are first detected. This assumes a prompt response under "Code C" and not a delayed response under "Code B." As FWS and the U.S. Geological Survey explained to BLM, this timeline for action is insufficient to protect the Dixie Valley toad. FWS noted that Dixie Valley toads are "very sensitive to water availability and temperature." Because of this, researchers from the U.S. Geological Survey stated in a meeting with BLM that "adaptive management would have to happen very fast in some cases[.]" For instance, "[i]f the water temperature gets too cold, to avoid a mass mortality event," correction would have to occur "in hours," rather than weeks. This, of course, assumes that any correction would be effective, something that neither the Final EA nor ARMMP establish.
- 147. Like the Final EA, the final version of the ARMMP removes language acknowledging the possibility of adverse impacts to the Dixie Valley toad and the springs, without providing additional information, or even a citation, explaining the changes.
- 148. The final version of the ARMMP reduces BLM's obligations to participate in, and contribute to, a Dixie Valley toad working group made up of BLM, NDOW, FWS, the Navy, and the U.S. Geological Survey. In reducing these obligations, the final version of the ARMMP increases BLM's ability to make unilateral decisions concerning Project management without consulting other interested and informed parties.
- 149. The final version of the ARMMP shortens the period in which baseline data collection will occur. Where the "Final Draft" ARMMP provided for a one- to two-year period of data collection, the final version specifies that data collection will take place over 12 months, concurrent with Project

construction. This impairs BLM's ability to understand the Project's impacts in two ways: first, it prevents the agency or Project operator from collecting data on the Dixie Valley toad and other sensitive species across multiple reproduction and hibernation cycles; second, it prevents the establishment of an accurate environmental baseline, as Project construction impacts will occur simultaneously with, and thus affect, any data collected.

- thresholds for the Dixie Valley toad. Where the "Final Draft" ARMMP provided for an adaptive management trigger when the toad population is reduced to 80% of baseline, the final versions simply states that "trigger and threshold values . . . will be determined" at an unspecified later date. Regarding toad distribution, the "Final Draft" ARMMP provided for a trigger at a 10% decline from baseline, while the final version again states that trigger and threshold values will be determined later. While the triggers identified in the "Final Draft" ARMMP were arbitrary and not supported by any data or analysis, the elimination of these triggers means that no adaptive management will be available for the toad in the Project's initial stages. Critically, the final ARMMP does not commit BLM or the project operator to developing these triggers by a date certain, meaning the project could be constructed and begin operating without relevant adaptive management triggers in place for the toad.
- 151. The final version of the ARMMP decreases the required frequency of technical working group meetings, from quarterly to twice a year. The technical working group is responsible for developing triggers and adaptive management responses for the Dixie Valley toad, so this effectively increases the time in which no adaptive management or mitigation scheme will be in place to prevent impacts to the toad.
- 152. The final version of the ARMMP provides that "[i]n the event mitigation actions are not sufficient for the protection of species and habitat, pumping and injection would be suspended until appropriate mitigation through adaptive management is identified, implemented, and shown effective to maintain appropriate conditions." However, no information is provided as to how BLM or the project operator would determine mitigation is "not sufficient," or how promptly this decision would be made after impacts are observed. Consequently, this does not provide adequate protection

against, or mitigation for, environmental impacts, which, as noted may manifest in a matter of hours. Under the proposed framework, suspension of operations can only occur some time after impacts have already occurred. Further, it is highly unlikely that Ormat would agree to suspend operations after investing millions of dollars into the project and entering into power-purchase agreements. Perhaps reflecting this practical limitation, the final ARMMP once again lists "[t]emporarily suspending geothermal reservoir utilization or reinjection" as a "low" feasibility mitigation option.

- 153. The final ARMMP removes a great deal of background discussion regarding Ormat's hydrogeologic conceptual model, but maintains the novel and unverified position that geothermal water flows to the surface through a series of previously undetected "east-northeast trending" faults. The final ARMMP attributes this assertion to a collection of well drillers' logs that were not made available for public review or comment before Project approval
- 154. With the exception of the changes discussed above, the final version of the ARMMP is substantially similar to the January 13, 2021 "Final Draft" version.
- 155. BLM's FONSI relies on the final ARMMP, and the representations made therein, to conclude that the Project will not have significant environmental impacts. However, the FONSI also states that the effects of the Project are "expected to be generally consistent with those of comparable projects in the region." As noted, BLM has been informed that at least one comparable project, Ormat's Jersey Valley project, caused flow from adjacent spring to cease entirely, despite the adoption of a monitoring and mitigation plan.
- Meadows Hot Springs Site," and its religious and cultural significance to the Tribe. It cites the MOA among the BLM, the Department of the Navy, the Advisory Council on Historic Preservation and the Nevada State Historic Preservation Officer, and claims that this MOA will "resolve adverse effects to the site." The FONSI omits, however, that the Tribe refused to sign on to the MOA because the protection measures proposed under the MOA and the ARMMP will not effectively protect the Tribe's spiritual, religious, and cultural interests in Dixie Meadows. The FONSI's reliance on the ARMMP and MOA ignores the aesthetic impacts created by noise and light pollution and visual obstruction of

that impacts from geothermal extraction may be long lasting or irreversible and thus not mitigated by operation of the ARMMP.

157. The FONSI and Decision Record fail to acknowledge the November 9, 2021 Secretarial

developing a major industrial facility at the sacred site. Defendants' analysis also fails to acknowledge

- 157. The FONSI and Decision Record fail to acknowledge the November 9, 2021 Secretarial Order on sacred sites or the November 12, 2021 MOU on sacred sites, both of which govern the Department of the Interior and BLM. On information and belief, BLM did not consider these new requirements and direction prior to issuing the FONSI and Decision Record.
- 158. BLM's November 23, 2021 Decision Record is effective immediately and authorizes ORNI 32, LLC to construct and operate the Project. It selects the "proposed action" alternative from the Final EA.
- 159. The Decision Record relies on the mitigation scheme proposed in the final ARMMP, and states that BLM "is able to reach a FONSI because of the adaptive management approach in the ARMMP."
- adverse impacts to the hydrologic resources, aquatic habitat, and sensitive species known to be present in the Dixie Meadows area. As a result," according to the Decision Record, "there will be no significant impacts on unique characteristics of the area." The discussion of BLM's rationale in the Decision Record does not consider the fact that baseline data, adaptive management triggers, and adaptive management responses essential to implementing the ARMMP do not yet exist. The Decision Record also fails to acknowledge the distinct possibility, raised by numerous technical experts, that once impacts occur to hydrologic resources they may be irreversible.
- 161. Like the FONSI, the Decision Record refers to the MOA, but does not acknowledge that the Tribe is not a signatory to the MOA and opposes the Project as approved due to its impacts on the Tribe's spiritual values, cultural heritage, and religious expression.

FIRST CLAIM FOR RELIEF

BLM's Final EA, FONSI, and Decision Record Violate NEPA and the APA.

162. The Tribe and the Center hereby incorporate by reference all preceding paragraphs.

- 163. NEPA requires a "full and fair discussion" of all direct, indirect, and cumulative impacts of the proposed action. 40 C.F.R. §§ 1502.1, 1502.14, 1502.16. This necessarily entails establishing an environmental baseline against which to compare predictions of the effects of the proposed action and reasonable alternatives. Without establishing baseline conditions, there is no way to objectively or accurately determine what effect an action will have on the environment and, consequently, no way to comply with NEPA.
- 164. Defendants have failed to adequately and accurately analyze the background/baseline conditions of resources that will be potentially affected by the Project, including water resources, wildlife and special status species, as required by NEPA and the NEPA implementing regulations applicable to the Project. Instead, the Decision Record provides that baseline data will be collected after the Project is approved, and potentially after it is constructed and brought online.
- 165. NEPA and its implementing regulations require federal agencies to prepare an environmental impact statement ("EIS") for all "major Federal actions significantly affecting the quality of the human environment." 42 U.S.C. § 4332(C)(i); 40 C.F.R. § 1501.4. Where an agency attempts to avoid the EIS requirement by relying on mitigation measures, its discussion of the proposed mitigation measures must be carefully considered, based on scientific studies, and effective to avoid significant impacts. Further, the agency's environmental analysis must "provide full and fair discussion of significant environmental impacts." 40 C.F.R. § 1502.1.
- 166. Defendants have failed to adequately and accurately define or analyze mitigation measures, and the effectiveness of those measures, as required by NEPA and the NEPA implementing regulations applicable to the Project.
- 167. Whether the agency prepares an EA or an EIS, the agency must take a "hard look" at all direct, indirect, and cumulative environmental impacts of the proposed action and its alternatives. 40 C.F.R. §§ 1502.14, 1502.16. To fulfill its purpose, the agency's environmental analysis must "provide full and fair discussion of significant environmental impacts." 40 C.F.R. § 1502.1
- 168. Defendants have failed to adequately and accurately analyze the Project's direct, indirect and cumulative impacts to wildlife, water resources, Tribal cultural resources, Tribal sacred

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sites, environmental justice, and all other potentially affected resources, as required by NEPA and the NEPA implementing regulations applicable to the Project. Instead of considering potential impacts to these resources, Defendants' environmental analysis relies on the unsupported and unverifiable assumption and all impacts may be, and will be, mitigated through the ARMMP.

- 169. An EA or EIS must rigorously explore and objectively evaluate reasonable alternatives to the proposed action, including a baseline alternative of taking "no action." 40 C.F.R. § 1502.14. The agency must "study, develop, and describe appropriate alternatives to recommend courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources." 42 U.S.C. § 4332(2)(E).
- 170. Defendants have failed to consider and analyze a range of reasonable alternatives to the proposed action, as required by NEPA and the NEPA implementing regulations applicable to the Project. Defendants' Final EA analyzes only two "action" alternatives which, with the exception of the transmission line route, involve the same Project design and the same or similar environmental impacts.
- 171. NEPA and its implementing regulations require federal agencies to prepare an environmental impact statement ("EIS") for all "major Federal actions significantly affecting the quality of the human environment." 42 U.S.C. § 4332(C)(i); 40 C.F.R. § 1501.4. A federal agency action may be "significant," and thus require an EIS, if: it affects unique environmental characteristics such as wetlands or ecologically critical areas, 40 C.F.R. §1508.27(3); the action's effects on the quality of the human environment are likely to be highly controversial, 40 C.F.R. §1508.27(4); the action's possible effects on the human environment are highly uncertain or involve unique or unknown risks, 40 C.F.R. §1508.27(5); the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration, 40 C.F.R. §1508.27(6); the action is related to other actions with individually insignificant but cumulatively significant impacts, 40 C.F.R. §1508.27(7); or the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources, 40 CFR §1508.27(8).

172. Defendants have failed to prepare an EIS analyzing the Project's significant environmental impacts, as required under NEPA and the NEPA implementing regulations applicable to the Project. Instead of preparing and EIS as required under NEPA, Defendants rely on vague, incomplete, and unsupported mitigation measures, and the unverifiable assumption that all significant impacts from the Project are capable of mitigation.

173. For all of these reasons, BLM's actions and omissions regarding the Project violate NEPA and are arbitrary, capricious, an abuse of discretion, not in accordance with law, without observance of procedure required by law, and in excess of statutory jurisdiction, authority, or limitations, within the meaning of the judicial review provisions of the APA. 5 U.S.C. §§ 701-706.

SECOND CLAIM FOR RELIEF

BLM's Final EA, FONSI, and Decision Record Violate FLPMA and the APA.

- 174. The Tribe and the Center hereby incorporate by reference all preceding paragraphs.
- 175. FLPMA requires that the public lands be managed "in accordance with" land use plans. 43 U.S.C. § 1732(a). "All . . . resource management authorizations and actions" must "conform to the approved plan." 43 C.F.R. §§ 1610.5-3(a). If a proposed action is not consistent with the applicable land use plan, BLM must rescind the proposed action or amend the plan. 43 C.F.R. §§ 1610.5-3, 1610.5-5.
- 176. The approved land use plan applicable to the Project is the Carson City RMP. It requires BLM to maintain, protect, and improve water resources, wetland habitats, sensitive wildlife species, and cultural resources. The Carson City RMP also incorporates BLM's Special Status Species policy, which requires the agency to reduce or eliminate threats to special status species so that protection under the Special Status Species policy or the ESA would no longer be necessary.
- 177. The Final EA, FONSI, and Decision Record do not comply with the Carson City RMP as required by FLPMA. Specifically, the Final EA, FONSI, and Decision Record fail to maintain, protect, and improve the condition of water resources, wetland habitats, sensitive wildlife species, and cultural resources at Dixie Meadows. The Final EA, FONSI, and Decision Record also fail to reduce or eliminate threats to the Dixie Valley toad such that management under the Special Status Species

policy or the ESA would be unnecessary. Instead, the Final EA, FONSI, and Decision Record increase threats to the Dixie Valley toad and thus increase the likelihood of ESA listing, as recognized by FWS.

178. Defendants' actions and omissions noted above regarding its review and approval of the Project violate FLPMA and its implementing regulations. Defendants' actions and omissions in reviewing and approving the Project are therefore arbitrary, capricious, an abuse of discretion, not in accordance with law, without observance of procedure required by law, and in excess of statutory jurisdiction, authority, or limitations, within the meaning of the judicial review provisions of the APA. 5 U.S.C. §§ 701-706.

THIRD CLAIM FOR RELIEF

BLM's Final EA, FONSI, and Decision Record are Arbitrary, Capricious and Unlawful Under the APA.

- 179. The Tribe and the Center hereby incorporate by reference all preceding paragraphs.
- 180. Dixie Meadows qualifies as a "sacred site" under AIRFA, Executive Order 13007, Joint Secretarial Order 3403, and the November 9, 2021 inter-agency MOU concerning indigenous sacred sites.
- 181. Defendants' review and approval of the Project fail to consider or adequately implement the policy set forth in AIRFA, 42 U.S.C. §1996, which requires Defendants to prioritize protection and preservation of indigenous peoples' religious expression and access to sacred sites.
- 182. Defendants' review and approval of the Project fails to consider or comply with Executive Order 13007, which requires Defendants, to the extent practicable, to accommodate the traditional ceremonial use of sacred sites by indigenous peoples and avoid adversely affecting the physical integrity of any sacred sites.
- 183. Defendants' review and approval of the Project fails to consider or comply with Joint Secretarial Order 3404, which requires Defendants to fully consider, protect, and incorporate into their decisionmaking Tribal cultural values, traditional knowledge, and religious expression.
- 184. Defendants' review and approval of the Project fails to consider or comply with Defendant's obligations under the November 9, 2021 Inter-Agency MOU regarding protection of

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indigenous sacred sites, which include the obligation to seek to avoid adverse impacts to sacred sites, consider the interconnectedness of indigenous sacred sites with particular places and landscapes, and incorporate indigenous knowledge and values into their decisionmaking.

- 185. Defendants' failure to consider and comply with the directives described in Pars. 180-184, without adequate explanation or rationale, demonstrates that Defendants' actions and omissions in reviewing and approving the Project are arbitrary, capricious, and an abuse of discretion within the meaning of the judicial review provisions of the APA. 5 U.S.C. §§ 701-706.
- 186. By approving the Project without adequate rationale, Defendants took agency action that violated the APA's requirement for rational, rather than arbitrary, decisionmaking. 5 U.S.C. § 706(2)(A).

FOURTH CLAIM FOR RELIEF

BLM's Decision Record Violates RFRA.

- 187. The Tribe and the Center hereby incorporate by reference all preceding paragraphs.
- The Tribe and its members' sincerely held religious beliefs involve quiet contemplation 188. and reflection at Dixie Meadows Hot Springs, including the surrounding landscape. Tribal members' compliance with these beliefs is a religious exercise.
- 189. Defendants' approval of the Project creates government-imposed coercive pressure on the Tribal members to change or violate their religious beliefs. As detailed in this Complaint, approval of the Project damages the sacred value of the Hot Springs by altering its undisturbed state, and damages Tribal members' ability to carry out religious practices by creating noise, light, and visual pollution.
- Defendants' approval of the Project substantially burdens and inhibits the Tribe's 190. religious exercise.
- Defendants' approval of the Project through the Final EA, FONSI, and Decision 191. Record furthers no compelling governmental interest.
- 192. Defendants' approval of the Project through the Final EA, FONSI, and Decision Record is not the least restrictive means of furthering any governmental interest.

193. Defendants' approval of the Project through the Final EA, FONSI, and Decision Record violate Plaintiffs' rights secured to them by the Religious Freedom Restoration Act, 42 U.S.C. § 2000bb-2000bb-4.

FIFTH CLAIM FOR RELIEF

Defendants Violated Their Trust Responsibilities to the Tribe.

- 194. The Tribe and the Center hereby incorporate by reference all preceding paragraphs.
- 195. Defendants have a trust duty to the Tribe, which commits them to protecting the Tribe's rights, resources, and interests. In discharging this duty, Defendants are required to observe obligations of the highest responsibility and trust and the most exacting fiduciary standards. This includes the duty to show compliance with general regulations and statutes not specifically aimed at protecting Indian tribes, including NEPA and FLPMA.
- 196. By issuing the final EA, FONSI, and Decision Record in violation of NEPA, FLPMA, RFRA, and the APA, Defendants violated their trust responsibilities to the Fallon Paiute Shoshone Tribe. The violation of the trust duty set forth in this Claim for Relief derives from the detailed statutory violations.

PRAYER FOR RELIEF

WHEREFORE, the Tribe and the Center respectfully request that this Court:

- A. Declare that Defendants' August 2021 Final EA, November 23, 2021 FONSI, and November 23, 2021 Decision Record are unlawful under NEPA and arbitrary and capricious under the APA;
- B. Declare that Defendants' August 2021 Final EA, November 23, 2021 FONSI, and November 23, 2021 Decision Record are unlawful under FLPMA and the APA;
- C. Declare that Defendants' August 2021 Final EA, November 23, 2021 FONSI, and November 23, 2021 Decision Record are unlawful under RFRA and provide appropriate relief;
- D. Declare that Defendants' August 2021 Final EA, November 23, 2021 FONSI, and November 23, 2021 Decision Record fail to adequately consider or apply AIRFA, Executive Order

1	13007, Joint Secretarial Order 3403, and the November 9, 2021 MOU regarding indigenous sacred		
2	sites, and are therefore unlawful under the APA;		
3	E.	Declare that Defendants' statutory violations constitute a violation of Defendants' trust	
4	duties to the Fallon Paiute Shoshone Tribe.		
5	F.	Vacate and set aside the August 2021 Final EA;	
6	G.	Vacate and set aside the November 23, 2021 Finding of No Significant Impact;	
7	H.	Vacate and set aside the November 23, 2021 Decision Record;	
8	I.	Enjoin any implementation of the November 23, 2021 Decision Record;	
9	J.	Award Plaintiffs costs, expenses, expert witness fees, and reasonable attorney fees	
10		pursuant to applicable law including the Equal Access to Justice Act, 28 U.S.C. § 2412;	
11		and	
12	K.	Grant Plaintiffs such further relief as may be just, proper, and equitable.	
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1	Dated December 15, 2021	Respectfully submitted,
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3		/s/ Scott Lake Scott Lake
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13		Tribe
14		/s/ Wyatt Golding
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13		within 9 days)
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